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| APPLICATION NO.                          | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/736,861                               | 12/16/2003  | Christopher Hsu      | LEEE 2 00302        | 5353             |
| 27885                                    | 7590        | 12/15/2005           | EXAMINER            |                  |
| FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP |             |                      | KIM, SANG K         |                  |
| 1100 SUPERIOR AVENUE, SEVENTH FLOOR      |             |                      | ART UNIT            | PAPER NUMBER     |
| CLEVELAND, OH 44114                      |             |                      | 3654                |                  |

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                   |  |
|------------------------------|--------------------------------------|-----------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/736,861 | <b>Applicant(s)</b><br>HSU ET AL. |  |
|                              | <b>Examiner</b><br>SANG KIM          | <b>Art Unit</b><br>3654           |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 11-34 and 37-76 is/are pending in the application.
- 4a) Of the above claim(s) 17, 18, 20-22, 42-48, 50, 52, 55, 56 and 71 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3, 5, 7, 8, 19, 25, 26, 28, 31, 33, 34, 59, 60 and 65-67 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 11, 14-16, 23, 24, 27, 29, 30, 37, 39-41, 49, 51, 53, 54, 57, 58, 61-64, 68-70 and 72-76 is/are rejected.
- 7) ☒ Claim(s) 4, 6, 12, 13, 32, 38 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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***Election/Restrictions***

Claims 17-18, 20-22, 42-48, 50, 52, 55, 56, and 71 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 3/14/05.

Applicant's election without traverse of species I (figures 2-7) in the reply filed on 3/14/05 is acknowledged.

Claim 71 is withdrawn from consideration because it is not readable on the elected invention. The telescoping tube sections are shown in figure 8 (Species II).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 23-24, 27-30, 49-51, 53-54, 57-58, 62-64 and 72-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over FR 2661118.

With respect to claims 1, 29, 51, 62 and 72, FR '118 shows a floating liner (3) comprising a tube (3) having first and second ends (left and right sides) and a passageway extending between the two ends, said first end and said passageway adapted to receive a metal wire (1), at least a portion of said tube (3) is made from a synthetic material, said tube (3) having a weight distribution that causes said first end to

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at least partially float up and down above (3 is floating above the top layer of the wire and can move up and down since it is not attached at any end) a top surface of a layer of metal wire (7) for at least a portion of a time [when] the wire is paid out of the container (6), see figure 1.

FR '118 does not explicitly state whether the synthetic tube is rigid or flexible.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to select a flexible material, many of which are known as synthetic rubber, in order to avoid breakage of the guide tube.

The term "liner or welding wire" used in the claim preamble does not patentably distinguish over the prior art, because it does not impart or define any particular structural limitations of the apparatus or relates only to a possible or intended use of the device.

With respect to claims 2, 30 and 64, as stated above, FR '118 teaches a downward force on said tube resulting from the weight distribution of the tube (3) is about equal to an upward force applied to said tube as the welding wire is paid out of the container (i.e., the wire passing through the tube is able to keep the tube floating above the stack of wire by keeping the wire speed relatively constant).

With respect to claims 23-24, 57-60 and 74, as stated above, FR '118 shows the passageway of the tube has an inner diameter that is at least twice the diameter of the dispensing material passing through the passageway, see figure 1.

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With respect to claims 53-54, 63 and 73, as stated above, FR '118 shows a retainer ring (4) positioned on the top surface of the layers of wire, and the first end of the tube (3) floating closely adjacent to a top surface of the ring, see figure 1.

With respect to claims 27-28, 49-50, 76, as stated above, FR '118 does not explicitly show a lower portion of the tube in a curved shape.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to select a flexible synthetic material with a curved shape for the tube in order to guide and conform to natural bend of the wire to prevent any kink, twist or entanglement.

Claims 15-16, 40-41, 61 and 75 rejected under 35 U.S.C. 103(a) as being unpatentable over FR 2661118, in view of Cordora et al., U.S. Patent No. 2821092.

With respect to claims 15-16, 40, 61 and 75, FR '118 teaches a synthetic material but does not teach coating a low friction material.

Cordora '092 teaches a tubular liner member 16 formed from Telfon, which provides a low friction.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify or incorporate a low friction material, as taught by Cordora '092 into the guide tube of FR '118, to help guide the wire and prevent any damage to the wire caused by friction.

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Claims 11, 37, and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over FR 2661118, in view of Moll et al., U.S. Patent No. 5896654.

With respect to claims 11, 37 and 68, FR '118 shows a floating liner (3) comprising a tube (3) having first and second ends (left and right sides) and a passageway extending between the two ends, said first end and said passageway adapted to receive a metal wire (1), at least a portion of said tube (3) is made from a synthetic material, said tube (3) having a weight distribution that causes said first end to at least partially float up and down above (3 is floating above the top layer of the wire and can move up and down since it is not attached at any end) a top surface of a layer of metal wire (7) for at least a portion of a time [when] the wire is paid out of the container (6), see figure 1.

FR '118 does not explicitly state whether the synthetic tube is rigid or flexible along with a beveled opening.

Moll '654 shows a nozzle (10) with a beveled opening (13) to help guide the wire which has a cross-sectional area that is less than a cross-sectional area of said passageway, see figures 1-3.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to select a flexible material, many of which are known as synthetic rubber, in order to avoid breakage of the guide tube along with a beveled opening of the tube as taught by Moll '654, to help guide the wire through the tube.

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Claims 14, 39 and 69-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over FR '118 in view of Moll '654 as applied to claims 11, 37 and 68 above, and further in view of Cordora et al., U.S. Patent No. 2821092.

With respect to claims 14, 39 and 69-70, as stated above, FR '118 in view of Moll '654 teaches a synthetic material, but does not teach coating a low friction material.

Cordora '092 teaches a tubular liner member 16 formed from Telfon, which provides a low friction.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify or incorporate a low friction material, as taught by Cordora '092 into the guide tube of FR '118 in view of Moll '654, to help guide the wire and prevent any damage to the wire caused by friction.

### ***Response to Arguments***

Claims 3, 5, 11-13, 15, 27-28, 31, 33, 37-38, 40, 49-50, 65-68, 70 have been amended.

Claim 76 has been added.

Claims 9-10 and 35-36 have been canceled.

Applicant's arguments filed on 10/24/05 have been fully considered but they are not persuasive with respect to claims presented in the previous Office Action.

Note: The added limitations and rearrangement of the claims necessitated the new grounds of rejection set forth above. The applicant has attached a computer automated translation of the French patent 266118.

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Applicant argues that FR '118 does not disclose a tube being flexible or curved shape, and no mention of a synthetic material being used for the tube.

As stated above, FR '118 does teach a synthetic material for the tube, see page 6, fourth paragraph of applicant's automated translation. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select a flexible material which can be a curved shape, many of which are known as synthetic rubber, in order to avoid breakage of the guide tube.

Applicant argues that FR '118 device 3 fails to have a passageway diameter that is at least twice the diameter of the wire.

As stated above, FR '118 shows in figure 1 and see page 7 of applicant's automated translation, the device 3 guides wire 1 in an angle. Thus, the passageway of the tube 3 has an inner diameter that is at least twice the diameter of the dispensing material passing through the passageway since the wire 1 is being guided in an angle greater than the diameter of the wire.

Applicant argues that FR '118 fails to disclose the weight distribution as defined in claims 2, 30, and 64.

As stated above, the device 3 has its own weight distribution. FR '118 teaches a downward force on said tube resulting from the weight distribution of the tube (3) is about equal to an upward force applied to said tube as the welding wire is paid out of the container (i.e., the wire passing through the tube is able to keep the tube floating above the stack of wire by keeping the wire speed relatively constant).



Applicant argues that FR '118 fails to disclose a bevel or a passageway that includes a low friction material.

As stated above, the rejection was not based on FR '118 reference alone.

Furthermore, applicant argues that references of Cordora and Moll in combination with FR '118 have nothing to do with the apparatus and method defined in the present invention.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, all the references are related in the same field of guiding wire, see the rejection set forth above.

#### ***Allowable Subject Matter***

Claims 3, 5, 7-8, 19, 25-26, 28, 31, 33-34, 59-60, 65-67 are allowed.

Upon the allowance of a generic claim 3, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a). Thus, claim 19 is allowed.

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Claims 4, 6, 12-13, 32, and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SANG KIM whose telephone number is 571-272-6947. The examiner can normally be reached Monday through Friday from 8:00 A.M. to 5:30 P.M. alternating Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki, can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SK

12/9/05

A handwritten signature in black ink that reads "Kathy Matecki". The signature is written in a cursive, flowing style.

**KATHY MATECKI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600**